WEST Search History

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DATE: Wednesday, December 24, 2003

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		DB=PGPB,USPT,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ	
☐	L7	5764903[uref]	12
☐	L6	5901228[uref]	10
☐	L5	L4 not l3	52
☐	L4	L1 same (host or server)	59
☐	L3	L1 same internet	25
☐	L2	L1 same differen$	30
☐	L1	(virtual or emulate) with hard drive	227

END OF SEARCH HISTORY

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L5: Entry 13 of 52   File: PGPB   May 16, 2002

PGPUB-DOCUMENT-NUMBER: 20020059402
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020059402 A1

TITLE: SERVER-SIDED INTERNET-BASED PLATFORM INDEPENDENT OPERATING SYSTEM AND
APPLICATION SUITE

PUBLICATION-DATE: May 16, 2002

INVENTOR-INFORMATION:
NAME	CITY	STATE	COUNTRY	RULE-47
BELANGER, CHARLES E.	BILLEVICA	MA	US	

APPL-NO: 09/ 134396   [PALM]
DATE FILED: August 14, 1998

CONTINUED PROSECUTION APPLICATION: This is a publication of a continued prosecution
application (CPA) filed under 37 CFR 1.53(d).

RELATED-US-APPL-DATA:
Application is a non-provisional-of-provisional application 60/030994, filed
November 15, 1996,
Application is a non-provisional-of-provisional application 60/030996, filed
November 15, 1996,
Application is a non-provisional-of-provisional application 60/038411, filed
February 18, 1997,
Application is a non-provisional-of-provisional application 60/055782, filed August
15, 1997,
Application is a non-provisional-of-provisional application 60/057256, filed August
29, 1997,
Application is a non-provisional-of-provisional application 60/060612, filed
October 1, 1997,
Application is a non-provisional-of-provisional application 60/065416, filed
November 13, 1997,

INT-CL: [07] G06 F 15/177

US-CL-PUBLISHED: 709/220
US-CL-CURRENT: 709/220

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

The systems and methods described herein provide different types of Web authoring,
Web site management, and communication software technology, including but not
limited to full multimedia authoring, online libraries, sounds, forms, e-mail,

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facsimile, voice-mail, pager, telephone, financial management, true document printing (as opposed to screen printing), text-to-voice and voice-to-text conversion, file management, spreadsheets, all accessed and run via the Internet. The system resides entirely on an Internet Web Server site and interacts with users via conventional programming languages written for a universal protocol. As a result, there is no need for client-side messaging software. All software is provided on the server side. The only software the user needs is any form of communications module and an electronic communications connection. Because the system is platform and operating system independent, a user may author, create, maintain, send and receive messages from any platform, using any conventional operating system. A user may customize their desktop configuration and may run a variety of different applications. Moreover, a user may switch between applications, and transfer text, graphics, or sound files between applications.

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L2: Entry 2 of 30   File: PGPB   Jun 12, 2003

PGPUB-DOCUMENT-NUMBER: 20030110188
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030110188 A1

TITLE: Virtual directory file navigation system

PUBLICATION-DATE: June 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Howard, David E.	Loveland	CO	US	
Gandee, John J.	Windsor	CO	US	
Godwin, Kurt E.	Loveland	CO	US	

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
1 Vision Software, Inc.	Loveland	CO	US	02

APPL-NO: 10/ 320890   [PALM]
DATE FILED: December 16, 2002

RELATED-US-APPL-DATA:
Application 10/320890 is a division-of US application 09/603701, filed June 27,
2000, US Patent No. 6496837
Application 10/320890 is a division-of US application 09/635060, filed August 9,
2000, US Patent No. 6519612
Application 09/635060 is a division-of US application 08/979657, filed November 26,
1997, US Patent No. 6185574
Application is a non-provisional-of-provisional application 60/031926, filed
November 27, 1996,

INT-CL: [07] G06 F 12/00

US-CL-PUBLISHED: 707/200
US-CL-CURRENT: 707/200

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

The parallel virtual directory system can extend the native file system to provide
a superior method for organizing a computer system's physical storage devices or
locations. These can include hard disks and removable media or remote storage
locations such as on the Internet. Interceptor modules can monitor all file or
memory changes such as creations, writes and deletes to the native file system and
can pass this information to the parallel virtual directory system. The parallel

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virtual directory system may be accessed through the native file system methods allowing users to view their file system as it existed at any point in time, including removable media that is no longer present in the system. Further, via the parallel virtual directory system and the Interceptor modules, users can access any file in any of the monitored file systems. The parallel virtual directory system may be implemented using database technology thereby allowing multiple views of the parallel virtual directory system to be offered to the user based on their needs and can thus be used to ease navigation through the file system. Further, a set of information management processes can run at the application level providing data management services such as backup, archiving, recording of digital video programming, or even controlled playback or utilization of that information. The information management processes can configure the parallel virtual directory system to capture the information they require and use the gathered information to efficiently complete their data management functions.

[0001] This application claims the benefit of pending U.S. application 60/031,926, entitled "Parallel Global Directory and File Navigation System" and filed on Nov. 27, 1996.

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L2: Entry 22 of 30   File: USPT   Sep 23, 1997

US-PAT-NO: 5671439
DOCUMENT-IDENTIFIER: US 5671439 A

TITLE: Multi-drive virtual mass storage device and method of operating same

DATE-ISSUED: September 23, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Klein; Dean A.	Lake City	MN		
Anderson; Eric D.	Hudson	WI		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Micron Electronics, Inc.	Minneapolis	MN			02

APPL-NO: 08/ 370650   [PALM]
DATE FILED: January 10, 1995

INT-CL: [06] G06 F 12/06

US-CL-ISSUED: 395/821; 395/841, 395/405, 395/441
US-CL-CURRENT: 710/1; 710/21, 711/114, 711/5

FIELD-OF-SEARCH: 360/22, 360/23, 360/24, 365/230.04, 369/34, 395/821, 395/841,
395/405, 395/441, 395/454, 395/440, 395/850

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

▓ Search Selected ▓ | ▓ Search ALL ▓ | Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4222078	September 1980	Bock	360/23
☐	4366510	December 1982	Watanabe et al.	360/22
☐	4393444	July 1983	Weinberg	395/405
☐	4622598	November 1986	Doi et al.	360/22
☐	5047873	September 1991	Ballinger et al.	360/22
☐	5088081	February 1992	Farr	360/24
☐	5148432	September 1992	Gordon et al.	395/182.05

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☐	5237466	August 1993	Glaser et al.	360/73.03
☐	5276808	January 1994	Cheney et al.	395/841
☐	5301297	April 1994	Menon et al.	395/441
☐	5355486	October 1994	Cornaby	395/650
☐	5359611	October 1994	Parks et al.	371/40.4
☐	5367410	November 1994	McCarthy	360/22
☐	5388108	February 1995	De Moss et al.	371/51.1
☐	5402428	March 1995	Kauta et al.	395/182.07
☐	5404454	April 1995	Parks	395/841
☐	5440716	August 1995	Schultz et al.	395/441
☐	5446855	August 1995	Dang et al.	395/401
☐	5479611	December 1995	Oyama	395/185.01
☐	5555391	September 1996	De Subijana et al.	395/850

OTHER PUBLICATIONS

Messmer, The Indispensable PC Hardware Book, pp;. 510-605, 777-788 (Addison-Wesley 1993).

ART-UNIT: 235

PRIMARY-EXAMINER: Harvey; Jack B.

ASSISTANT-EXAMINER: Myers; Paul R.

ATTY-AGENT-FIRM: Dorsey & Whitney LLP

ABSTRACT:

A virtual mass storage device implements a data manager for storing information on multiple physical mass storage devices. The virtual mass storage device is organized into blocks of information which are allocated to different physical devices, thereby enabling the physical devices to operate in parallel and increase the overall transfer rate of the virtual device.

38 Claims, 12 Drawing figures

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L5: Entry 45 of 52   File: USPT   Feb 6, 2001

US-PAT-NO: 6185580
DOCUMENT-IDENTIFIER: US 6185580 B1

TITLE: Physical information and extensions file and file system translator

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Day, III; Kenneth Fairclough	Tucson	AZ		
Dewey; Douglas William	Tucson	AZ		
Pease; David Allan	Redwood Estates	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
International Business Machines Corporation	Armonk	NY			02

APPL-NO: 09/ 103697   [PALM]
DATE FILED: June 24, 1998

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/205; 707/1, 707/4, 707/204, 345/326
US-CL-CURRENT: 707/205; 707/1, 707/204, 707/4

FIELD-OF-SEARCH: 707/204, 707/205, 707/1, 707/4, 345/326

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| Search Selected | | Search ALL | | Clear |

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
□	4956809	September 1990	George et al.	707/101
□	5088031	February 1992	Takasaki et al.	395/400
□	5129088	July 1992	Auslander et al.	395/700
□	5506692	April 1996	Murata	358/442
□	5546558	August 1996	Jacobson et al.	395/441
□	5564051	October 1996	Halliwell et al.	707/200

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☐	5572711	November 1996	Hirsch et al.	703/26
☐	5682507	October 1997	Phillips et al.	395/850
☐	5953522	September 1999	Fox et al.	395/681

ART-UNIT: 277

PRIMARY-EXAMINER: Breene; John

ASSISTANT-EXAMINER: Lewis; Cheryl

ATTY-AGENT-FIRM: Altera Law Group, LLC

ABSTRACT:

A file translation system and a physical information and extensions file for an intermediary controller is disclosed. The file translation system that allow a host computer to directly access data from a different host type without moving the actual data. The physical information and extension file provides information concerning the location of data and the file system the host is viewing. The intermediary controller is disposed between a legacy disk controller for an originating host of a first type and an open system host. The intermediary controller emulates a virtual storage device using a virtual device file system, wherein the virtual device file system mapping data stored in a storage device by the originating host to objects in a root directory in the virtual device file system. The physical information and extension file comprising controller information for identifying the intermediary controller and logical device information, as well as any other information needed by an administrator or service technician.

28 Claims, 6 Drawing figures

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L5: Entry 50 of 52   File: USPT   Jun 9, 1998

US-PAT-NO: 5764903
DOCUMENT-IDENTIFIER: US 5764903 A

TITLE: High availability network disk mirroring system

DATE-ISSUED: June 9, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Ying-King	Sunnyvale	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Acer America Corporation	San Jose	CA			02

APPL-NO: 08/ 312869   [PALM]
DATE FILED: September 26, 1994

INT-CL: [06] G06 F 13/00

US-CL-ISSUED: 395/200.38; 395/439, 395/825
US-CL-CURRENT: 709/208; 710/5, 711/112

FIELD-OF-SEARCH: 395/826, 395/200.03, 395/200.05, 395/200.08, 395/182.04, 395/441, 395/825, 395/872, 364/966.5, 364/968, 364/242.84, 364/280, 364/284.4, 364/285.3

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected   Search ALL   Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4244019	January 1981	Anderson et al.	395/200.05
☐	4590554	May 1986	Glazer et al.	395/182.11
☐	4700292	October 1987	Campnaini	395/200.2
☐	4958270	September 1990	McLaughlin et al.	364/187
☐	5051887	September 1991	Berger et al.	395/489
☐	5065354	November 1991	Jons et al.	395/182.03
☐	5086502	February 1992	Malcolm	395/182.06
☐	5088021	February 1992	McLaughlin et al.	364/187

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☐	5157663	October 1992	Major et al.	395/182.08
☐	5206934	April 1993	Naef, III	395/200.04
☐	5379374	January 1995	Ishizaki et al.	395/155
☐	5390313	February 1995	Yanai et al.	395/425
☐	5392244	February 1995	Jacobsen et al.	365/200
☐	5398331	March 1995	Huang et al.	395/575
☐	5432922	July 1995	Polyzois et al.	395/425
☐	5434994	July 1995	Shaheen et al.	395/500
☐	5435004	July 1995	Cox et al.	395/575
☐	5446855	August 1995	Dang et al.	395/401
☐	5452448	September 1995	Sakuraba et al.	395/600
☐	5459857	October 1995	Ludlam et al.	395/182.04
☐	5479653	December 1995	Jones	395/182.03
☐	5488731	January 1996	Mendelsohn	395/800

ART-UNIT: 272

PRIMARY-EXAMINER: Lee; Thomas C.

ASSISTANT-EXAMINER: Chen; Anderson I.

ATTY-AGENT-FIRM: Townsend and Townsend and Crew LLP

ABSTRACT:

The present invention provides methods for mirroring hard disk data of a primary server over a network to a secondary server. A virtual disk driver is provided between the operating system and the hard disk driver of the primary server. After the virtual disk driver receives a disk write request that should be mirrored, the virtual disk driver first sends a disk write request to the secondary server. The virtual disk driver then sends the disk write request to a disk drive on the primary server. In the event data residing on one server is unavailable due to a system failure, the same data would still be available on the other server. Multiple methods of synchronous and asynchronous disk mirroring are provided. The present invention provides a very low overhead and results in high performance and availability.

31 Claims, 9 Drawing figures

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L6: Entry 1 of 10   File: USPT   Jul 15, 2003

US-PAT-NO: 6594677
DOCUMENT-IDENTIFIER: US 6594677 B2

TITLE: Virtual tape storage system and method

DATE-ISSUED: July 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Davis; Ray Charles	Spring	TX		
Blythe; Bobby Ernest	Pearland	TX		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
SimDesk Technologies, Inc.	Houston	TX			02

APPL-NO: 09/ 747457   [PALM]
DATE FILED: December 22, 2000

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/204
US-CL-CURRENT: 707/204

FIELD-OF-SEARCH: 707/102, 707/204, 707/104.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

▓ Search Selected ▓ ▓ Search ALL ▓ ▓ Clear ▓

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5485608	January 1996	Lomet et al.	707/202
☐	5506661	April 1996	Hanzawa	399/1
☐	5694546	December 1997	Reisman	705/26
☐	5758067	May 1998	Makinen et al.	395/185.07
☐	5765173	June 1998	Cane et al.	707/204
☐	5771354	June 1998	Crawford	395/200.59
☐	5805864	September 1998	Carlson et al.	395/500
☐	5901228	May 1999	Crawford	380/25

☐	5966730	October 1999	Zulch	711/162
☐	6049874	April 2000	McClain et al.	713/176
☐	6065062	May 2000	Periasamy et al.	709/242
☐	6070224	May 2000	LeCrone et al.	711/112
☐	6094605	July 2000	Blendermann et al.	700/214
☐	6125388	September 2000	Reisman	709/218
☐	6199071	March 2001	Nielsen	707/204
☐	6427149	July 2002	Rodriguez et al.	707/10
☐	6510432	January 2003	Doyle	707/10

OTHER PUBLICATIONS

Internet printout, "BackOnline," http://freeback.com, Printed Dec. 14, 2000, 5 pages.
Internet printout, "Find Out More," http://www.storagepoint.com, Printed Dec. 14, 2000, 3 pages.
Internet printout, INRANGE--Products "Resource Center," http://www.inrange.com, Printed Dec. 14, 2000, one page.

ART-UNIT: 2171

PRIMARY-EXAMINER: Metjahic; Safet

ASSISTANT-EXAMINER: Al-hashemi; Sana

ATTY-AGENT-FIRM: Woodard, Emhardt, Moriarty, McNett & Henry LLP

ABSTRACT:

An archiving system allows a user to select files to be archived using a terminal connectable to a remote computer via a long distance telecommunication connection. The files may be selected from any memory accessible to the terminal including locally accessible memory and remotely accessible memory. The files are archived to a user space within a writable stable memory connected to the remote computer and may be restored to their original memory location in response to user commands from the terminal.

30 Claims, 4 Drawing figures

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L7: Entry 1 of 12   File: USPT   Dec 2, 2003

US-PAT-NO: 6658563
DOCUMENT-IDENTIFIER: US 6658563 B1

TITLE: Virtual floppy diskette image within a primary partition in a hard disk drive and method for booting system with virtual diskette

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ice, Jr.; Herbert Jackson	Austin	TX		
Johnson; Robert Duane	Raleigh	NC		
Kekessie; Kofi	Durham	NC		
Rhoades; David	Apex	NC		
Vaiskauckas; Gary Anthony	Morrisville	NC		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
International Business Machines Corporation	Armonk	NY			02

APPL-NO: 09/ 574729   [PALM]
DATE FILED: May 18, 2000

INT-CL: [07] G06 F 15/177, G06 F 1/24

US-CL-ISSUED: 713/2; 713/1, 713/100
US-CL-CURRENT: 713/2; 713/1, 713/100

FIELD-OF-SEARCH: 713/1, 713/2, 713/100, 711/173, 700/5

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| Search Selected | | Search ALL | | Clear |

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5142680	August 1992	Ottman et al.	717/176
☐	5758165	May 1998	Shuff	717/176
☐	5764903	June 1998	Yu	
☐	5787491	July 1998	Merkin et al.	711/173

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☐	5887164	March 1999	Gupta	
☐	5930831	July 1999	Marsh et al.	711/173
☐	5964830	October 1999	Durrett	
☐	6192471	February 2001	Pearce et al.	713/2
☐	6199159	March 2001	Fish	713/2
☐	6304965	October 2001	Rickey	713/2
☐	6430663	August 2002	Ding	711/162
☐	6473655	October 2002	Gould et al.	700/5

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
404268626	September 1992	JP	

OTHER PUBLICATIONS

"Dynamic Validation of a Large Virtual Partition Space", IBM Technical Disclosure Bulletin, Dec. 1973, vol. No. 16, pp. 2104-2105.*
"Enhancing Applications Performance on Intel Paragon through Dynamic Memory Allocation", IEEE, 1994, pp. 232-239.

ART-UNIT: 2185

PRIMARY-EXAMINER: Heckler; Thomas M.

ASSISTANT-EXAMINER: Cao; Chun

ATTY-AGENT-FIRM: Bracewell & Patterson LLP

ABSTRACT:

A data processing system and method are described for booting a computer system from a virtual floppy diskette. A native operating system is executed by the computer system which utilizes a native file system. A boot able floppy diskette image is stored on the hard drive. The image includes a second operating system which utilizes a second file system. A master boot record stored on the hard drive is modified to include a boot bit. The boot bit is set in response to a storage of the image. The computer system is then booted from the image in response to the boot bit being set. The native operating system and the native file system are unchanged during the booting of the computer system from the image.

21 Claims, 5 Drawing figures

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L5: Entry 39 of 52   File: USPT   Jun 25, 2002

US-PAT-NO: 6411943
DOCUMENT-IDENTIFIER: US 6411943 B1

TITLE: Internet online backup system provides remote storage for customers using IDs and passwords which were interactively established when signing up for backup services

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crawford; Christopher M.	Washington	DC	20016	

APPL-NO: 09/ 644546   [PALM]
DATE FILED: August 24, 2000

PARENT-CASE:
This is a continuing application of application Ser. No. 09/417,896, filed Oct. 14, 1999, now U.S. Pat. No. 6,327,579, which is a divisional application of application Ser. No. 09/159,492, filed Sep. 23, 1998, now U.S. Pat. No. 6,014,651; which is a divisional of application Ser. No. 08/813,612 filed Mar. 10, 1997, now U.S. Pat. No. 5,901,228; which is a divisional of application Ser. No. 08/145,825 filed Nov. 4, 1993, now U.S. Pat. No. 5,771,354, the entire contents of which are hereby incorporated by reference in this application.

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/400; 705/30, 705/34
US-CL-CURRENT: 705/400; 705/30, 705/34

FIELD-OF-SEARCH: 379/90.01, 379/93.01, 379/93.02, 379/111, 379/114, 705/30, 705/34, 705/400, 709/209, 709/217, 709/218, 709/219

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

▓ Search Selected ▓   ▓ Search ALL ▓   ▓ Clear ▓

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3718906	February 1973	Lightner	379/77
☐	3917934	November 1975	Goto	705/418
☐	3934079	January 1976	Barnhart	725/131
☐	4278837	July 1981	Best	178/22.09

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☐	4319079	March 1982	Best	178/22.09
☐	4465901	August 1984	Best	178/22.09
☐	4528643	July 1985	Freeny, Jr.	364/900
☐	4649479	March 1987	Advani et al.	395/681
☐	4675828	June 1987	Winston	364/528.21
☐	4685055	August 1987	Thomas	364/200
☐	4796220	January 1989	Wolfe	364/900
☐	4827508	May 1989	Shear	705/53
☐	4868758	September 1989	Kokubu	705/400
☐	4901223	February 1990	Rhyne	364/200
☐	4954945	September 1990	Inoue et al.	364/200
☐	4959861	September 1990	Howlette	380/4
☐	4962449	October 1990	Schlesinger	364/200
☐	4982234	January 1991	McConaughy et al.	395/200.52
☐	4994963	February 1991	Roden et al.	710/129
☐	4999806	March 1991	Chernow et al.	717/11
☐	5005122	April 1991	Griffin et al.	364/200
☐	5007082	April 1991	Cummins	380/4
☐	5023774	June 1991	Sakai	395/849
☐	5060185	October 1991	Naito et al.	364/900
☐	5089958	February 1992	Horton	395/182.03
☐	5107456	April 1992	Schuur	395/325
☐	5109515	April 1992	Laggis et al.	707/10
☐	5181238	January 1993	Medamana et al.	379/95
☐	5182770	January 1993	Medveczky et al.	380/4
☐	5204897	April 1993	Wyman	380/4
☐	5210866	May 1993	Milligan et al.	395/182.04
☐	5212784	May 1993	Sparks	395/575
☐	5222134	June 1993	Waite et al.	380/4
☐	5257367	October 1993	Goodlander et al.	395/600
☐	5265153	November 1993	Ozawa	379/100.04
☐	5276441	January 1994	Katsurada et al.	340/825.03
☐	5276867	January 1994	Kenley et al.	707/204
☐	5291554	March 1994	Morales	380/5
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ABSTRACT:

A user can use his personal computer to call up an on-line service system over a telecommunications link such as a telephone line. The On-line system provides all sorts of useful services to the personal computer such as antiviral protection, auxiliary processing capabilities, and other features that are impractical or inconvenient to provide locally.

49 Claims, 68 Drawing figures

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